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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/035,778	12/31/2001	Patrick L. Ferguson	P01-3860	3911

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Legal Department M/S 35
P.O. Box 272400
Ft. Collins, CO 80527-2400

EXAMINER

KNAPP, JUSTIN R

ART UNIT	PAPER NUMBER
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2182

DATE MAILED: 07/06/2004

7

Please find below and/or attached an Office communication concerning this application or proceeding.

PLG

Office Action Summary	Application No. 10/035,778	Applicant(s) FERGUSON ET AL.	
	Examiner Justin Knapp	Art Unit 2182	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 19-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 19-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 19-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over ATI's VGA Wonder video card (herein referred to as ATI), VGAWonder mixes the old and new, page 186 and <http://mirror.ati.com/support/products/pc/vgawonder/vgawondercables.html>.

3. Referring to claim 19, ATI discloses:

a first circuit board (the VGAWonder card) assembly including extension transmitter circuitry (a mouse port) and graphics controller circuitry (see page 186, column 2).

ATI does not explicitly disclose how many connectors are used on the first circuit board to communicate with a second circuit board (a motherboard). ATI does teach that the VGAWonder card connects to a second circuit board (a motherboard) utilizing various pins on an ISA bus (see picture on page 186) of the motherboard.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize various pins to control the graphics controller as well as other pins connected to the ISA bus to control the mouse extension circuitry. Doing so would allow for the extension and graphics circuitry to communicate with a processor that would be on the motherboard as well as the rest of a computer system.

Art Unit: 2182

4. Referring to claim 20, it would be inherent that a second circuit board would be a motherboard containing a processor.

5. Referring to claims 21 and 23, ATI does not explicitly disclose the use of PCI, PCI-X or AGP circuitry to connect the graphics controller circuitry to a second circuit board. ATI does disclose a older method of connecting a graphics controller circuit to the motherboard utilizing ISA circuitry. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify ATI's circuitry to utilize PCI, PCI-X, or AGP circuitry. Doing so would ensure greater compatibility with newer computer systems.

6. Referring to claim 22, ATI does not explicitly disclose wherein the first and second connector communicate independently. It would have been obvious to one of ordinary skill in the art at the time the invention was made to allow the extension transmitter and graphics controller circuitry on the VGAWonder card to work independently of each other as it would provide great flexibility. The card would be able to used as just a mouse port or just as a graphics card.

7. Claims 24-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over ATI's VGA Wonder video card (herein referred to as ATI), VGAWonder mixes the old and new, page 186 and <http://mirror.ati.com/support/products/pc/vgawonder/vgawondercables.html>. in view of Leigh et al (herein referred to as Leigh), US Pub 2003/0088655.

8. Referring to claim 24, ATI does not explicitly teach wherein the extension transmitter circuitry includes KVM circuitry. However, Leigh discloses KVM circuitry on a circuit board (section [0030]). It would have been obvious to make the KVM circuitry and the graphics controller circuitry of ATI integral onto one circuit board. Doing so would save space and allow

Art Unit: 2182

for the addition of more add-on cards by freeing up, for example, a PCI slot on a motherboard.

(see *In re Larson*, 340 F.2d 965, 967, 144 USPQ 347, 349 (CCPA 1965); *In re Wolfe*, 251 F.2d 854, 855, 116 USPQ 443, 444 (CCPA 1958)).

9. Referring to claim 25, the claim is based on similar limitations as a combination of claims 19, 23, and 24 and is thus rejected on the same basis as the combination of those claims.

10. Referring to claim 26, ATI in view of Leigh does not explicitly disclose wherein the first and third connector communicate independently. It would have been obvious to one of ordinary skill in the art at the time the invention was made to allow the KVM extension transmitter and graphics controller circuitry of a card based on a combination of ATI and Leigh to work independently of each other as it would provide great flexibility. By doing so, the card would be able to used as just a KVM card or just as a graphics card.

11. Referring to claim 27, it would be inherent that a second circuit board would be a motherboard containing a processor.

12. Referring to claims 28 and 29, it is inherent the ATI VGAWonder would be able to communicate analog and digital video data between the second circuit board assembly and the graphics controller circuitry.

13. Referring to claim 30, the claim is based on similar limitations as a combination of claims 25 and 26 and is thus rejected on the same basis as the combination of those claims.

14. Referring to claim 31, it would be inherent that a first circuit board would be a motherboard.

15. Referring to claims 32 and 33, ATI in view of Leigh does not explicitly teach the use of ribbon cables for connecting the connectors on a card to the connectors on a motherboard. It

Art Unit: 2182

would have been obvious to one of ordinary skill in the art to utilize ribbon cables. Doing so would allow a KVM/graphics card to be mounted else where within a computer case other than directly to the motherboard.

16. Referring to claim 34, ATI in view of Leigh does not explicitly disclose the use of PCI, PCI-X or AGP circuitry to connect the graphics controller circuitry to a second circuit board.

ATI does disclose a older method of connecting a graphics controller circuit to the motherboard utilizing ISA circuitry. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify ATI's circuitry to utilize PCI, PCI-X, or AGP circuitry.

Doing so would ensure greater compatibility with newer computer systems.

17. Referring to claim 35, ATI in view of Leigh discloses an extension transmitter circuitry comprising KVM circuitry (as taught herein above).

18. Referring to claim 36, the claim is based on similar limitations as rejected herein above. Furthermore, ATI in view of Leigh teaches an extension receiver electrically coupled to at least one user interface device; and a communication pathway configured to facilitate communications between the computer host and the at least one user interface device (see Leigh, figure 2).

19. Referring to claim 37, ATI in view of Leigh teaches a configuration comprising KVM circuitry.

20. Referring to claims 38-39, it would be inherent a communication pathway comprises fiber optic cable or category five cable when hooking up a user interface device to the configuration.

21. Referring to claim 40, ATI in view of Leigh teaches wherein the user interface device is a mouse, keyboard, and/or video monitor.

Art Unit: 2182

22. Referring to claim 41, ATI in view of Leigh does not explicitly disclose the use of PCI, PCI-X or AGP circuitry to connect the graphics controller circuitry to a second circuit board. ATI does disclose a older method of connecting a graphics controller circuit to the motherboard utilizing ISA circuitry. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify ATI's circuitry to utilize PCI, PCI-X, or AGP circuitry. Doing so would ensure greater compatibility with newer computer systems.

Conclusion

23. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin Knapp whose telephone number is (703) 308-6132. The examiner can normally be reached on Mon - Fri 9 am - 5:30 pm.

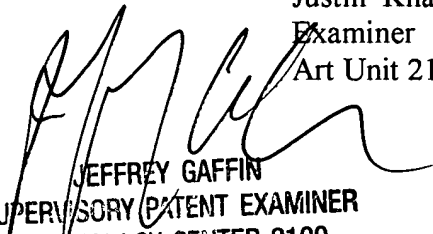
Art Unit: 2182

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Gaffin can be reached on (703) 308-3301. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

June 27, 2004

Justin Knapp
Examiner
Art Unit 2182



JEFFREY GAFFIN
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